ABSTRACT OF THE DISCLOSURE

A wraparound delay amount detecting part calculates a cross-correlation r(k) from an output speech signal "a_i" supplied to a loudspeaker and an input speech signal "b_i" inputted through a microphone array to obtain a delay amount "d" of a wraparound speech signal. The delay processing part generates a speech signal "a_{i-d}" obtained by delaying the output speech signal "a_i" by the delay amount "d". Even if there is a change in delay amount due to the variation in environment, appropriate delay processing can be conducted by the delay processing part. In an adaptive filter, an estimated wraparound speech signal a_{i-d}' is generated from the speech signal "a_{i-d}" subjected to delay processing. A subtracter subtracts the estimated wraparound speech signal a_{i-d}' from the input speech signal "b_i" to generate an echo cancellation signal "e_i". A coefficient updating part updates the coefficient of the adaptive filter.